

Dorota B. Schranz Ph.D.
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Washington State Toxicology Laboratory
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APPOINTMENTS:

February 2003 - present: Forensic Toxicology Technical Lead, Forensic Laboratory Services Bureau, Washington State Patrol

Accomplishments:

- Analysis of biological specimens for drugs of abuse and alcohol in DUI and death investigations
- Preparation and validation of laboratory standards and controls
- Maintenance of quality control data and documentation
- On-site coordination of ROSITA 2 (Roadside Testing Assessment) International Project

Professional Training/Courses:

- The Robert F. Borkenstein Course of Alcohol and Highway Safety: Testing, Research and Litigation, Bloomington, IN, December 2003
- Psychopharmacology 2003, R. Cassidy Seminars, October 2003
- Preparation and Planning for Laboratory Accreditation by the American Board of Forensic Toxicology Workshop, The Society of Forensic Toxicologists, October 2003
- Feeling Blue? Antidepressant Workshop, The Society of Forensic Toxicologists, October 2003
- Forensic Toxicology of Methadone Workshop, the Society of Forensic Toxicologists, October 2003
- Drug Evaluation and Classification (16 hr preschool), WA State Patrol, October, 2003
- Standardized Field Sobriety Test Refresher Training, May 2003
- The A to Z @ Marijuana Workshop, Canadian Society of Forensic Science, March 2003

Licenses and Certifications:

- Blood Alcohol Analyst Permit issued March 2003 by the Washington State Toxicologist

1999-2001: Postdoctoral Training Program in Clinical Chemistry, Department of Laboratory Medicine, University of Washington and Children's Hospital, Seattle, WA

Accomplishments:

- Assay development:
 1. Comparative genomic hybridization (CGH) analysis of retinoblastoma
 2. Restriction analysis of PCR amplified genomic DNA for detection of tyrosinemia
 3. Quantitative (real-time) PCR for identifications of pathogenic protozoa

- Assay validation:
 1. Frequency of GAD65Ab in a hyperglycemic hospital patient population
 2. Predictive value of aldosterone/renin ratio (ARR) in primary aldosteronism
 3. Analysis of hydrogen and methane in expired air in carbohydrates intolerance

Courses:

- Clinical Chemistry: Conferences on Research and Development
- Clinical Laboratory Testing: Methods and Interpretation
- Organization and Management in Laboratory Medicine

Lectures:

- Immunology in Diabetes: A Year 2000 Update
- Catabolic Pathway of Tyrosine and its Diseases

Teaching:

- Undergraduate Medical Technology Program
 - Lectures: Medical Technology: Introductory Clinical Chemistry
 - Laboratory: Topics in Clinical Chemistry

1995-1999: Postdoctoral senior fellow at the Robert H. Williams Laboratory, Department of Medicine, University of Washington, Seattle, WA

Accomplishments:

- Assay development: microSepharose assay for autoantibodies in diabetes
- Population based studies:
 1. Autoantibodies and classification of diabetes mellitus among Swedish patients
 2. Prevalence of autoantibodies in Sardinian Type 2 diabetic families
 3. Prevalence of autoimmunity among type 2 diabetes Latvian patients
- International collaborative study: the development of a WHO International Standard for Islet Cell Antibodies
- Mechanism of GAD65 autoantibodies affinity maturation
- Predictive value of HLA-DQ genotype for beta-cell function in type 1 diabetes
- Epitope-specificity of islet cell autoantigen antibodies present in sera of diabetes patients

Fellowship Award:

Postdoctoral Fellowship from the Juvenile Diabetes Foundation International

Teaching:

- Supervising graduate thesis preparation of clinical chemistry students
- Supervising technical staff

1994-1995: Postdoctoral fellow at Virginia Mason Research Center (Immunology and Diabetes Research Program), Department of Immunology, University of Washington, Seattle, WA

Accomplishments:

- Role of intracellular proteases in invariant chain degradation

- Role of cathepsin E in processing of autoantigen and infectious agents

1993-1994: Postdoctoral fellow at the Division of Endocrinology, Department of Medicine, University of Colorado Health Sciences Center, Denver, CO

Accomplishments:

Role of the tyrosine- specific protein kinase domain in insulin receptor endocytosis

1988-1989: Laboratory of Immunochemistry, Department of Cancer Pathology and Immunology, University School of Medicine in Poznan, Poland

Accomplishments:

Microheterogeneity of alpha-fetoprotein (AFP) and carcinoembryonic antigen (CEA) in pathological conditions

EDUCATION:

- 1988 MS degree in Clinical Chemistry from the Faculty of Clinical Chemistry, Department of Pharmacology, University School of Medicine in Poznan, Poland
- 1991 Specialist of Clinical Analysis degree from Postgraduate Training in Clinical Analysis, Department of Clinical Analysis, University School of Medicine in Poznan, Poland
- 1993 Ph.D. degree in Medical Sciences from the Department of Medicine, University School of Medicine in Poznan, Poland

MEMBERSHIP:

- 1996-1998 Juvenile Diabetes Foundation International
- 2000-present American Association for Clinical Chemistry

PUBLICATIONS:

Maioli M., Tonolo G., Bekris L., Cirillo R., **Schranz D.**, Cossu E., Ciccarese M. and Å Lernmark. GAD65 and IA-2 autoantibodies are common in a subset of siblings of Sardinian Type 2 diabetes families. *Diabetes Res Clin Pract.* 2002 56(1):1-7; 2002.

Schranz D.B., L. Bekris, M. Landin-Olsson, C. Törn, A. Niläng, Å. Toll, J. Sjöström, H. Grönlund, Å. Lernmark for the Diabetes Incidence Study in Sweden (DISS). Newly diagnosed latent autoimmune diabetes in adults (LADA) is associated with low level glutamate decarboxylase (GAD65) and IA-2 autoantibodies. *Horm. Metab. Res.*; 32:133-138; 2000

C.S. Hampe, E. Örtqvist, B. Persson, **D.B. Schranz** and Å. Lernmark. Glutamate decarboxylase (GAD) autoantibody epitope shift during the first year of type 1 diabetes. *Horm. Metab. Res.*; 31: 553-557; 1999

C.S. Hampe, E. Örtqvist, O. Rolandsson, M. Landin-Olsson, C. Törn, Å. Ågren, B. Persson, **D.B. Schranz** and Å. Lernmark. Species specific autoantibodies in Type 1 diabetes. *J. Clin. Endocrinol. Metab.*; 84: 643-648; 1999

Schranz D.B., L. Bekris, M. Landin-Olsson, C. Törn, A. Niläng, Å. Toll, J. Segelman, H. Grönlund, B. Toivola, Å. Lernmark and the Diabetes Incidence Study in Sweden (DISS) group. A simple and rapid microSepharose assay for GAD65Ab and ICA512Ab autoantibodies. *J. Immunol. Methods*, 213, 87-97, 1998.

Schranz D.B. and Å. Lernmark. Immunology in Diabetes: An Update. *Diabetes Metab. Rev.* 14, 3-29, 1998.

Schranz D.B., Rohilla A.M.K., Anderson C., Wood W.M., Berhanu P. (1996) Insulin internalization in the absence of the insulin receptor tyrosine kinase domain is insufficient for mediating intracellular biological effects. *Biochem. Biophys. Res. Comm.*, 227: 600-607, 1996.

Morkowski S., **D. Schranz**, J. Klosin, J. Breborowicz. Crossreactivity between carcinoembryonic antigen and CEA-like antigens and human pregnancy-specific β 1 glycoprotein. *Pol. J. Immunol.*, XVII, 3: 283-289, 1992.

Schranz D., S. Morkowski, G.I. Abelev. Affinity isotachopheresis on porous membranes., p 61-70, In: J. Breborowicz and A. Mackiewicz (eds) Affinity electrophoresis. Principles and applications. CRC Press, 1992.

Schranz D., S. Morkowski, E.R. Karamova, G.I. Abelev. Counterflow affinity isotachopheresis on cellulose acetate membranes. *Electrophoresis*. 12: 414-419, 1991.

Selected abstracts / presentations:

Schranz D.B., S. Loew, K. Raven, N. Nuwayhid, A.M. Gordon and B.K. Logan. Death Following Long Term Fluoxetine Use. The Society of Forensic Toxicologists (SOFT) Annual Meeting, Portland, OR, 2003.

Schranz D.B., J. Eisner, G. Bonnett, L.S. Finn, K.E. Opheim. Comparative genomic hybridization (CGH) analysis of retinoblastoma for DNA copy number abnormalities. 53rd AACC Annual Meeting and Clinical Lab Expo, Chicago, IL. *Clin. Chem.*47: A100, 2001.

Schranz D.B., M.H. Wenner. Frequency of glutamic acid decarboxylase (GAD65) autoantibodies (Ab) in a hyperglycemic hospital patient population and the potential for correct reclassification of adult diabetics. 52nd AACC Annual Meeting and Clinical Lab Expo, San Francisco, CA. *Clin. Chem.*46: A121, 2000.

Juneja R., B.M. Brooks-Worrell, **D.B. Schranz**, C.J. Greenbaum, J.P. Palmer. Islet antibody clustering and peripheral blood mononuclear cell response to human islet antigens in antibody positive NIDDM patients. *Diabetes*. 46 (Suppl. 1): 347A, 1997.

Schranz D.B., A. Niläng, Å. Toll, J. Segelman, M. Landin-Olsson, H. Grönlund, B. Toivola, Å. Lernmark and the Diabetes Incidence Study in Sweden (DISS) group. Microsepharose assay for glutamate decarboxylase (GAD65) antibodies to predict and classify diabetes in the 15-34 years old. 2nd Congress of the Immunology of Diabetes Society, Canberra, Australia. *Autoimmunity*, 24: 38, 1996.

Schranz D.B., Anderson C., Wood W.M., Berhanu P. Insulin internalization in the absence of the insulin receptor tyrosine kinase (TK) domain is insufficient for mediating intracellular biologic effects. American Diabetes Association 54th Annual Meeting and Scientific Sessions, New Orleans, LA, 1994.

Schranz D., Morkowski S., Karamova E.R., Abelev G.I. Human alfa₁-fetoprotein microheterogeneity revealed by counterflow affinity isotachopheresis with lectins. 18th Meeting of the International Society for Oncodevelopmental Biology and Medicine (ISOMB), Moscow, Russia, 1990